GRISHKAN, S.G., inzh.; KOZLOV, A.I., inzh.

Final machining of working surfaces of hydraulic cylinders by rolling. Stroi.i dor.mashinostr. 4 no.10:32-33 O '59. (MIRA 13:2)

(Rolling (Metalwork))

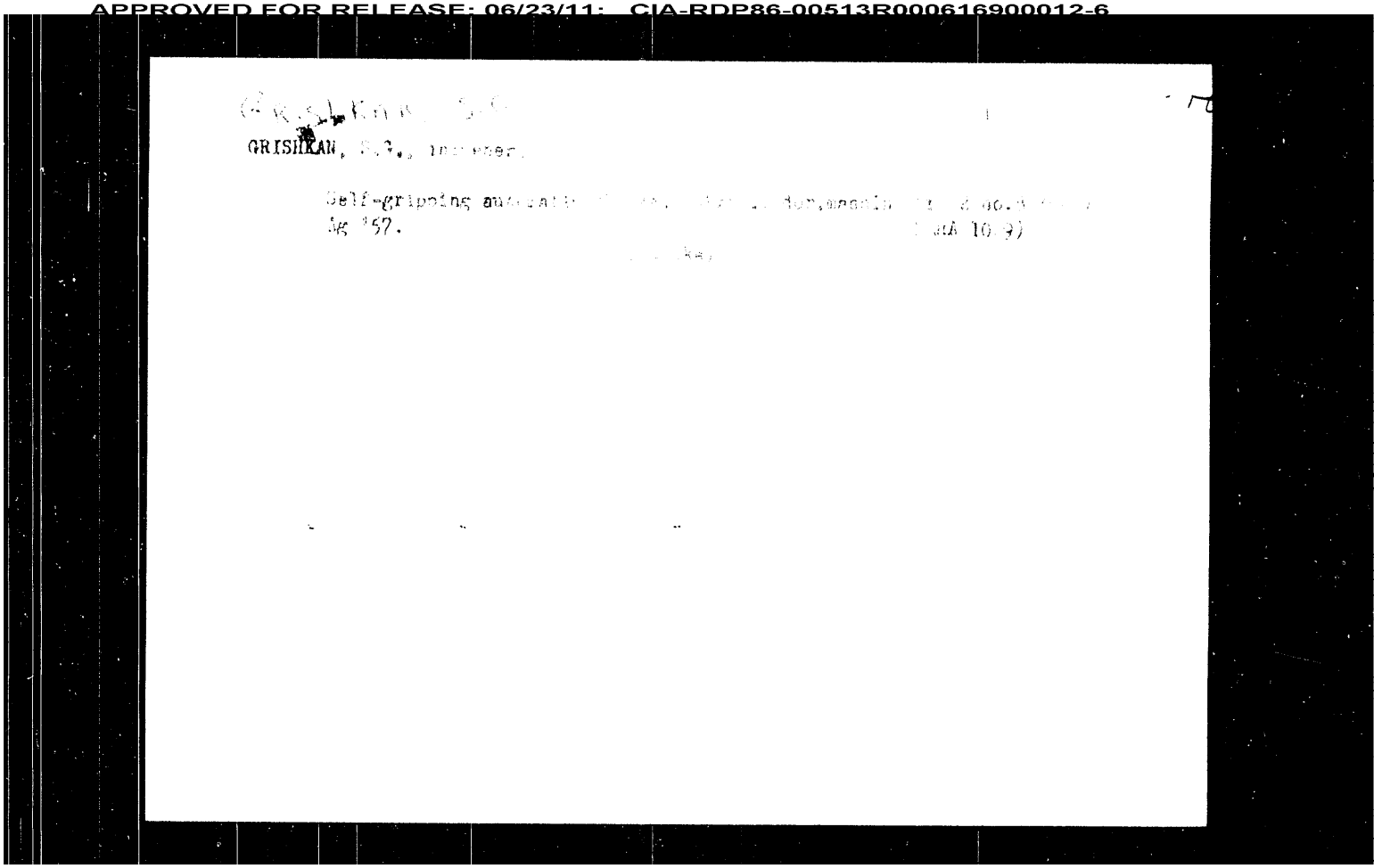
GRISHKAN, S. G., inzh.

Mechanized central storage of metals at the "Krasnyi Ekskavator" Plant. Stroi.i dor.mashinostr. 4 no.5:31-33 My '59.
(MIRA 12:7)

(Factory management)

GRISHKAN, S.G., inzh.

Equipment for making pipes at the "Red Excavator" Plant. Stroi. i dor.mashinostr. 3 no.11:36-38 N '58. (MIRA 11:11)
(Excavating machinery) (Pipe, Steel)



GRISHKAN, [illegible]

Self-gripping [illegible]
Ag '57.

GRISHKAN, S.G., inzhener.

New attachments designed by lathe operator-innovator V.K. Seminskii of the "Krasnyi Ekskavator" plant. Stroi.i dor.mashinostr. 2 no.3:27-30 Mr '57. (MLRA 10:5)

(Lathes--Attachments)

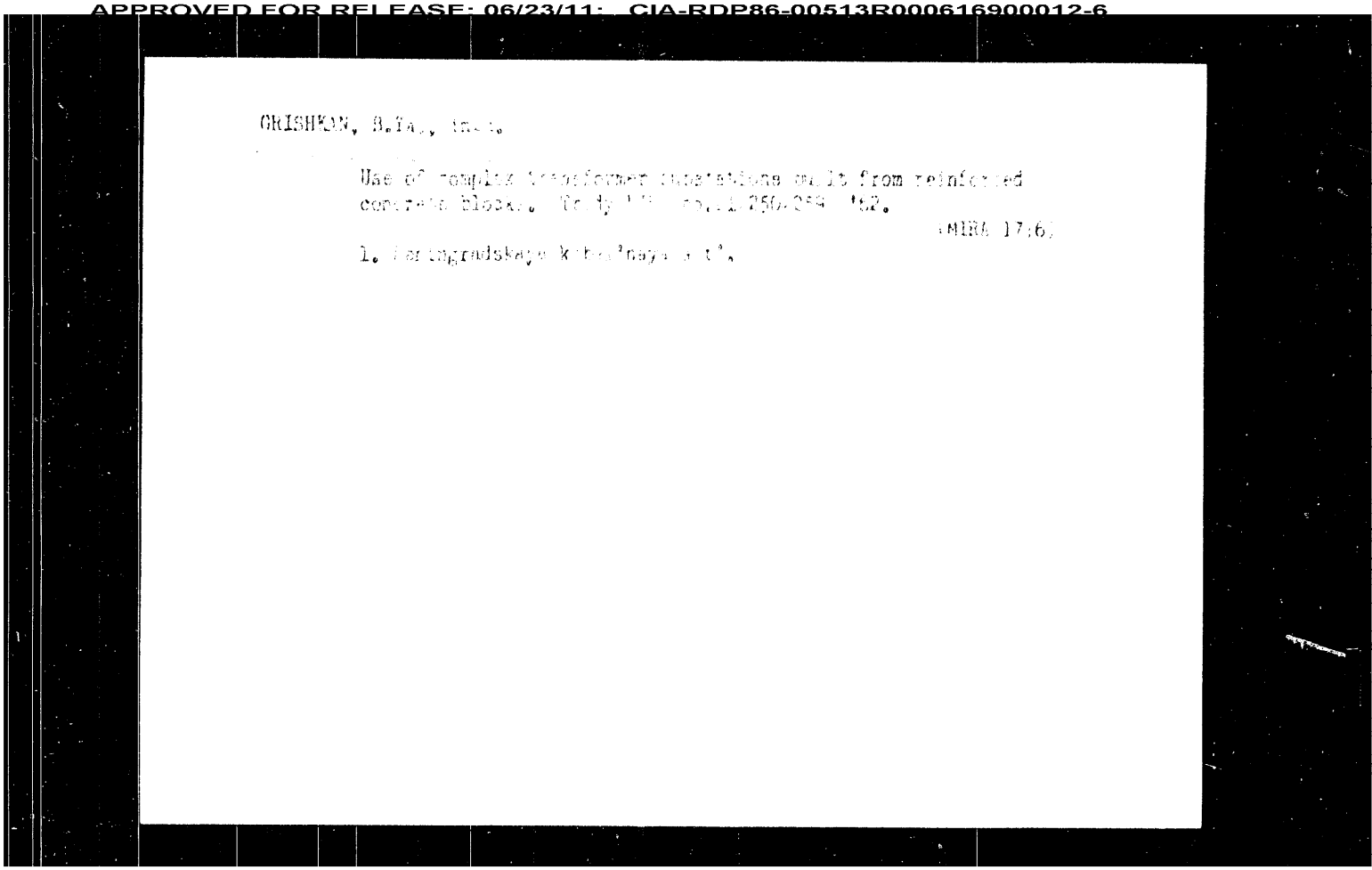
GRISHKAN, S.G.

Honing hydraulic cylinders for the E-153 excavator. Stroi.i dor.mashinostr. no.9:25 S '56. (MLRA 9:11)
(Grinding and polishing)

PROSKURYAKOV, Vladimir Borisovich; GRISHKAN, I.A., red.; SOKOLEVA, Ye.M., tekhn. red.

[Using the method of photoelasticity in solving engineering problems] Ispol'zovanie metoda fotouprugosti pri reshenii inzhenernykh zadach. Moskva, Gosenergoizdat, 1962. 47 p. (MIRA 15:10)

(Photoelasticity) (Stains and stresses)



GRISHKOV, B.Ya., inzh.

Use of complex reinforcement installations made from reinforced concrete blocks. [illegible] 250-259 '62.

(MIRA 17:6)

1. Leningradskoye [illegible]

VOLCHKOV, Konstantin Konstantinovich; GRISHKAN, Boris Yakovlevich; ZARKHIN, Mikhail Markovich; MANN, A.K., kand.tekhn.nauk, retsenzent; BARANOV, B.M., inzh.; retsenzent; POKLAD, P.G., inzh., retsenzent; SMIRNOV, L.P., inzh., retsenzent; FOMICHEV, G.I., inzh., retsenzent; FRIDKIN, I.A., inzh., retsenzent; SHCHEGLOV, A.P., inzh., red.; ZHITNIKOVA, O.S., tekhn.red.

[Line structures of municipal electric networks] Ekspluatatsiia setevykh sooruzhenii gorodskoi elektricheskoi seti. Pod red. A.P. Shcheglova. Moskva, Gos.energ.izd-vo, 1960. 394 p.
(MIRA 13:5)

1. Moskovskaya kabel'naya set' (for Baranov, Poklad, Smirnov, Fomichev, Fridkin).
(Electric power distribution)

SOV/137-59-4-8859

Roentgenographic Investigations Into Changes of Residual Stresses in Low-Carbon Steel, Depending on the Rolling Speed

roentgenograms were subjected to microphotometric evaluation on a Zeiss microphotometer. It was established that $K\alpha$ doublet lines fused under various conditions of rolling. Calculations of residual stresses carried out by different methods and based on microphotometric data were used to establish optimum conditions of pipe rolling.

V.G.

Card 2/2

SOV/137-59-4-8859

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 4, pp 214 - 215 (USSR)

AUTHORS: Aliyev, N.A., Mamedov, K.P., Grishkan, A.Z.

TITLE: Roentgenographic Investigations Into Changes of Residual Stresses in Low-Carbon Steel, Depending on the Rolling Speed

PERIODICAL: Tr. In-ta fiz. i matem. AS AzerbSSR, 1958, Vol 9, pp 70 - 76 (Azerb. résumé)

ABSTRACT: The authors present a brief review on the problem of applying X-ray analysis to investigate residual stresses; they also analyzed methods of interpreting microphotograms and described roentgenographic investigations of residual stresses arising under various conditions of rolling in steel pipes containing 0.05 - 0.15%C, 0.15% [illegible], 0.3% Ni. Billets from one smelt having equal dimensions were piled on a bar; then the pipe was rolled and the structure, physical and mechanical properties of individual sections were examined. Roentgenographic investigations were made by using the method of reverse exposure and with the use of a tube with a Fe-anticathode, 35 kv voltage, 12 ma current and exposure for 10 hours; (220) lines were focused. The surface layer of the billets was etched-off with NHO_3 solution. The

Card 1/2

Mastering of 140, 250 and 400 mm Tube Rolling Mills of Soviet Design.

of mean wall thickness of tubes according to GOST 301-50 and produced on Soviet and 5 1/2" imported mills is given in Table 1. The distribution of maximum difference of the wall thickness of tubes rolled on 5 1/2" and 140 mills is shown in Figs. 2 and 3. Frequency distribution of variation of wall thickness of tubes rolled on 140 and 5 1/2" mills and the differences in the wall thickness of tubes rolled on 400 and 13 3/8" mills are shown in Figs. 4 and 5, respectively. It is concluded that mills 140, 250 and 400 mm are capable of producing tubes with an improved accuracy of dimensions which enables to decrease plus tolerances for wall thickness and thus obtain a substantial economy in the metal used; moreover, thin wall tubes can be rolled in some cases even on the 400 mill. There are 2 tables, 5 figures and 2 Slavic references.

AVAILABLE: Library of Congress.

Card 3/3

Mastering of 140, 250 and 400 mm Tube Rolling Mills of Soviet Design.

long and a wall thickness from 4.5 to 20 mm (after reducing ... tubes 15.5 m long can be made). It consists of; one ring furnace, piercing mill, automatic mill, two rolling mills, 5 stand mill for hot calibration of tubes, pre-heating furnace in front of the reduction mill, 20 stand reduction mill, coolers, straightening mills and an inspection table. Aggregate 250 differs in the composition of equipment from aggregate 140 only in the absence of the reducing mill and its reheating furnace. The calibration mill consists of 7 stands. On the basis of operating experience and results of investigations carried out by TsKBMM, VNITI and the works personnel the following conclusions are made: the main advantages of the new Soviet mills in comparison with imported ones are: a) an increase in the maximum rolling rates by 75% in piercing mills, by 50% in automatic mills if compared with corresponding modern imported mills 5 1/2" Etna Standard and 13 3/8" Shloman (Table 1); b) the use of pivot journals for all rolls (except in automatic mill 400) and special installations on piercing and rolling mills for exact centering along the axis of rolling of tube; c) the use in auxiliary mechanisms of electric drives instead of pneumatic ones which facilitates automation of rolling and

Card2/3 contributes to an increase in the rolling speed. The comparison

Card 1/3

136-7-15/28

AUTHOR: Grishkan, A.S., Krichevskiy, M.Ya., Seyfullin, G.K. and Rozenfel'd, M.B., Engineers.

TITLE: Mastering of 140, 250 and 400 mm Tube Rolling Mills of Soviet Design. (Osvoyeniye sovetskikh truboprokatnykh agregatov 140, 250 and 400)

PERIODICAL: Stal', 1957, No.7, pp. 621 - 627 (USSR)

ABSTRACT: In 1947-54, aggregates 140, 250 and 400 with an automatic mill for rolling tubes from 38 - 426 mm diameter of Soviet design were manufactured and erected on the Zakavkaz Metallurgical Works (Zakavkazskiy Metallurgicheskiy Zavod) (140 and 400) and on the Bakinsk Tube Rolling Works (Bakinskiy Truboprokatnyy Zavod) (140 and 250). Tube rolling aggregate 400 for the manufacture of tubes of a diameter from 130 to 426 mm, a length up to 15.5 m and wall-thickness from 5 to 40 mm, from round semis of carbon or alloy steels of up to 350 mm in diameter and the length of 4 m (2.5t) consists of: 2 ring heating furnaces with a rotating bottom, two piercing mills, preheating furnace in front of the automatic mill, automatic mill, two rolling mills, seven stand mills for hot calibration of tubes, two straightening mills, three stand mill for cold calibration of tubes, coolers and inspection tables. Aggregate 140 was designed for rolling tubes of a diameter from 38 to 140 mm, 11.5 m

GRUSHIN, Ye.Ye., kand. tekhn. nauk

Purifying wool-washing waste waters by anaerobic fermentation.
Vod. i san. tekh. no.12:24-27 D '64 (MIRA 18:2)

GRISHINA, Ye. Ye.

Cand Tech Sci - (diss) "Purifying waste waters from oils." Moscow, 1961. 19 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Order of Labor Red Banner Inst of Construction Engineering imeni V. V. Kuybyshev); 180 copies; free; (KL, 6-61 sup, 216)

GRISHINA, Ye.Ye.

Sewage from nonferrous rolling mills. Vod.i san.tekh. no.2:12-15 F '60. (MIRA 13:5)
(Sewage--Purification)
(Nonferrous metals--Metallurgy)

BOROVIK, Ye.S. [illegible]; [illegible], S.F. [illegible, S.F.];
GR[illegible], Ye.Ya. [Hryshyna, [illegible]]

[illegible] demagnetization of ferric ammonium [illegible]
[illegible] insulation. Ukr. [illegible] zhur. 3 no.[illegible]
([illegible])

1. [illegible]-tekhnicheskiy institut AN UkrSSR, Khar'kov.

L 27470-66
ACC NR: AP6007849 O

and 6 l/min of liquid hydrogen. Cooling with nitrogen produced a weaker field. Such solenoids can be fed from storage batteries or rectifiers without special filters, and are cheaper to manufacture than solenoids of pure aluminum wire or superconducting solenoids. Orig. art. has: 2 figures.

SUB CODE: 09, 14/ SUBM DATE: 05Jan65/ ORIG REF: 001

Card 2/2 BLG

L 27470-66 EWT(1) IJP(c) JW

ACC NR: AP6007849 SOURCE CODE: UR/0120/66/000/001/0227/0227

AUTHORS: Grishin, S. F.; Glasov, B. V.; Grishina, Ye. Ya.

ORG: none

TITLE: Cooled coils to obtain stationary magnetic fields

SOURCE: Pribory i tekhnika eksperimenta, no. 1, 1966, 227

TOPIC TAGS: solenoid, magnet, cryogenic liquid cooling

ABSTRACT: This is a continuation of earlier research on producing a stationary magnetic field by means of coils cooled with liquid hydrogen (Zh. tekhn. fiz. v. 34, no. 4, 459, 1961). The present solenoid construction consists of free-standing coils of commercial copper wire of 0.8 mm diameter, cooled by freely boiling liquid hydrogen or nitrogen. The cooper wires were interlined with pressboard in a manner to produce channels for the liquid to flow inside the solenoid. Cooling decreased the resistance of the wire by a factor of 94, which could be higher were the copper purer. A coil with 25000 turns, inside diameter 5 cm, outside diameter 26 cm, 22.5 cm long, and with a filling factor of 0.58 produced a magnetic field of 30 kG (current 26 amp), consuming 3 kw of electricity

Card 1/2 UDC: 538.244.2:621.318.371

Elasticity of Nitrogen- and Hydrogen Vapors at Low Pressures

S/057/60/030/05/11/014
B012/B056

dependence of the elasticity of the vapors on temperature. - It is shown that the hydrogen final vacuum may be increased in a helium condensation pump by pumping out the vapors above the liquid helium and reducing the temperature of the pump-surface. Table 3 shows the possibility of improving the final vacuum in this manner. In conclusion it is shown that the method described makes it possible, for the purpose of measuring vapor elasticity at low pressures, to measure vapor pressures up to $10^{-9} - 10^{-10}$ torr. Measurement of the dependence of the elasticity of hydrogen vapors on temperature was carried out within the range of $1 \cdot 10^{-9} - 1.8 \cdot 10^{-6}$ torr, and that of the nitrogen vapors was carried out within the range of $1.1 \cdot 10^{-10} - 3.2 \cdot 10^{-7}$ torr. There are 3 figures, 3 tables, and 8 references: 3 Soviet, 4 English, and 1 German.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN USSR Khar'kov (Institute of Physics and Technology of the AS UkrSSR, Khar'kov)

SUBMITTED: August 11, 1959

Card 2/2

81682

S/057/60/030/05/11/014
B012/B056

S/4210

AUTHORS: Borovik, Ye. S., Grishin, S. F., Grishina, Ye. Ya.

TITLE: Elasticity of Nitrogen and Hydrogen Vapors at Low Pressures

PERIODICAL: Zhurnal tekhnicheskoy fiziki, 1960, Vol. 30, No. 5, pp. 539 - 545

TEXT: For the purpose of determining the elasticity of nitrogen- and hydrogen vapor at low pressures, a method of direct pressure measurement of the saturating vapors was here applied. This method consisted in the following: The gas under investigation is condensed in a high vacuum on a cooled surface; after the end of condensation and after a certain period of waiting for the establishment of equilibrium in the free volume, such a pressure is adjusted on the surface, at which the rate of condensation is equal to the rate of evaporation in the substance under investigation. Fig. 1 shows the scheme of the device used, which is also described. Pressure- and temperature measurement as well as determination of the elasticity of the hydrogen- and nitrogen vapors are described. Figs. 2 and 3 give the measurement results, and Tables 1 and 2 show the

Card 1/2

GRISHINA, Ye.V.

Agrobiological characteristics of some grape varieties raised in the northern viticultural zone. Uch. zap. Sar. un. 64:109-115 '59. (MIRA 13:9)

(Khvalynsk District--Grapes--Varieties)

GRISHINA, Ye.N., inzh.; SHADRIK, K.A., inzh.; KHLUDEYEV, K.A., inzh.

Mastering the operation of the continuous sheet-rolling mill 1700 at the Il'ich plant. Stal' 23 no.7:635-636 Jl '63.(MIRA 16:9)
(Rolling mills)

L 64382-65
(A)

ACCESSION NR: AP5021616 UR/0286/65/000/013/0094/0094

AUTHORS: Mamedov, Sh.; Arabov, A. K. o.; Osipov, O. B.; Grishina, Ye. N. 11 B

TITLE: A method for controlling insects harmful to farm vegetation. Class 45, No. 172575

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 13, 1965, 94

TOPIC TAGS: pesticide, agriculture, insect control, organic compound

ABSTRACT: This Author Certificate presents a method for controlling insects harmful to farm vegetation by using an insecticide acting as a reaction starter. To enlarge the assortment of insecticides, β-diethylaminoethanol benzyl ether is used as a starting compound.

ASSOCIATION: none

SUBMITTED: 13Apr64 ENCL: 00 SUB CODE: LS, OC

NO REF SOV: 000 OTHER: 000

Card 1/1 Ile

MAMEDOV, Shamkhal [illegible]OV, O.B.; KHYDYROV, D.N.; AVANESYAN, M.A.; AGAYEV, A.S.; GRISHINA, Ye.N.

The new contact insecticides efiran-79 and efiran-103 for agricultural pests. Dokl. AN Azerb. SSR 17 no.10:937-940 '61. (MIRA 14:12)

1. Institut neftekhimicheskikh protsessov AN AzerSSR. Predstavleno akademikom AN AzSSR G.A. Aliyevym.
(Insecticides)

USSR/Cultivated Plants. Potatoes. Vegetables. Melons. U

Abs Jour: Ref Zhur-Biol., No 5, 1958, 20356.

Author : Ye. P. Grishina.
Inst : Not given.
Title : Raising Shoots from Seeds Rolled in Local Fertilizers. (Vyrashchivaniye rassady is semyan, obkatannykh v mestnykh udobreniyakh).

Orig Pub: S. kh. Povolzh'ya, 1957, No 2, 51-52.

Abstract: Two year long tests in the sovkhozes of Chkalovskaya Oblast' have demonstrated the increased growth of tomato and cabbage shoots which have been raised from seeds rolled in a mixture of chicken manure and ashes.

Card : 1/1

, Shamkhal; , O.B.; GRISHINA, Ye.N.

Efiran-59 and efiran-94, new highly effective chemicals for bollworm control. Dokl. AN Azerb. SSR 17 no.8:691-695 '61. (MIRA 14:10)

1. Institut neftekhimicheskikh protessov AN AzerbSSR. Predstavleno akademikom AN Azerbaydzhanskoy SSR I.D. Mustafayevym.
(Bollworm)
(Insecticides)

3/137/62/000/002/060/144
A006/A101

AUTHORS: Kapustina, M. I., Kuzema, I. D., Savchenko, A. M., Shiryayev, V. I., Goltvenko, A. I., Grishina, Ye. N.

TITLE: A rapid method of calculating the efficiency of three-high sheet rolling mills

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 2, 1962, 18, abstract 2066 ("Sb.nauchn. tr. Zhdanovsk. metallurg. in-t", 1960, no. 6, 186 - 198)

TEXT: Calculation data were checked by the oscillographic timing of a mill operation for all the brigades when rolling the main conventional sheet types of the mill assortments. A method was developed for calculating the efficiency of three-high mills on the basis of an analysis of reduction conditions, and force and power indices of rolling. The theoretical calculation of the efficiency of sheet rolling mills is given. The problem is discussed how to check the mill amount of work.

N. Yudina

[Abstracter's note: Complete translation]

Card 1/1

GRISHINA, Ye. N.

KIMMEL', I.Ya.; AVRAMOV, P.A.; GRISHINA, Ye.N.

Determining productive time norms for machine tool operations.
Stan.i instr. 28 no.2:31-33 F '57. (MLRA 10:5)
(Work measurement) (Machine-shop practice)

ISMAYLOV, Kh.A.; GRISHINA, Ye.N.

Results of testing DDT and benzene hexachloride against infurious eurygasters in Azerbaijan. Dokl. Azerb. SSR 10 no.1:63-66 '54. (MLRA 7:7)

1. Institut zemledeliya Akademii nauk Azerbaydzhanskoy SSR. Predstavleno deystvitel'nym chlenom Akademii nauk Azerbaydzhanskoy SSR G.A.Aliyevym.
(Benzene hexachloride) (DDT (Insecticide)) (Azerbaijan - Eurygasters) (Eurygasters--Azerbaijan)

GRISHINA, Ye.N.

Bioecological characteristics of the melon fly in Azerbaijan.
Dokl. AN Azerb. SSR 20 no.8:73-77 '64. (MIRA 17:12)

1. Institut genetiki i selektsii AN AzerSSR. Predstavleno akademikom AN AzerSSR I.D. Mustafayevym.

L 15663-63

ACCESSION NR: AP3003648

were provided for slab heating. The production of each pit was 110 tons/hr with cold steel and 160-180 tons/hr with hot steel. The pits operated on a mixture of waste gases and natural gas (2500 cal/m^3). The temperature of gas and air could be raised to 350 and 450C respectively. Thermal capacity of the pit was 70-90 cal/hr. Slabs were heated to 1200-1280C. The operation of mill 1700 has met with a number of difficulties. Orig. art. has: 1 figure.

ASSOCIATION: Zhdanovskiy metallurgicheskiy zavod im. Il'icha (Zhdanov Metallurgical Plant)

SUBMITTED: 00 DATE ACQ: 02Aug63 ENCL: 00

SUB CODE: ML NO REF SOV: 000 OTHER: 000

Card 2/2

L 15663-63 EWP(q)/EWT(m)/BDS AFFTC JD/HW

ACCESSION NR: AP3003648 S/0133/63/000/007/0635/0636

AUTHORS: Orishina, Ye. N. (Engineer); Stadnik, K. A. (Engineer); Khudeyev, K. A. (Enginee[redacted]

TITLE: Utilizing the continuous sheet-rolling mill 1700 at the Il'ich plant 58 57

SOURCE: Stal', no. 7, 1963, 635-636 14

TOPIC TAGS: mill 1700, rolling mill

ABSTRACT: A short description of plant 1700 is presented. Its present advantages and proposed improvements are discussed. The plate mill 1700, installed in the Il'ich Plant in 1960, is one of the largest continuous sheet-rolling mills in Europe. It is designed for the rolling of plates (cross section: 4-10 by 700-1500 mm) made from 130-200 by 720-1520-mm slabs. The length of single slabs was 2400-3050 mm, that of the double slabs 500-6100 mm. The weight of one steel roll was up to 8.5 tons. The supplementary universal quarto-stand was the distinguishing feature of this mill. According to the plan, 85% of the slabs had to be hot-rolled. However, because a special torch-trimming device had not been installed in the mill, 70% of slabs were cold-rolled. Four furnaces (soaking pits)

Card 1/2

ZASLAVSKIY, A. S.; GIDALEVICH, M. G.; Prinimali uchastiye:
GRISHINA, Ye. M.; TSVETKOVA, L. M.

Use of sorbic acid in the preparation of semiprocessed grape juice. Trudy MNIIPP 1:115-118 '61. (MIRA 16:1)

(Grape juice--Preservation)
(Sorbic acid)

ANTONOV, A.Ya., kand. tekhn. nauk; KOZLOV, Yu.V., inzh.; FOMINA, V.N., inzh.; BUYNOVSKAYA, L.G., inzh.; BULAVITSKIY, Yu.M., inzh.; GRISHINA, Ye.A., inzh.

Testing of a boiler with 220 ton/hour evaporative capacity with individual separating devices. Elek. sta. 34 no.5:7-10 My '63. (MIRA 16:7)

(Boilers—Testing)

OREKHOV, S.Ya.; DZHUMAYLO, V.I.; KOKHANOVSKIY, P.P.; GRISHINA, Ye.A.

Mineralogical features of Quaternary sediments in the lower Kama and Vyatka Valleys. Uch. zap. RGU 44:75-84 '59. (MIRA 14:1)
(Kama Valley--Sediments (Geology))
(Vyatka Valley--Sediments (Geology))

GRISHINA, Ye. A.

Feb 53

USSR/Electricity - Power Stations
Engineering - Water Purification

"Replacement of Sodium Chloride ~~with~~ by Sea Water in the Regeneration of Cationite Filters," Engr Ye. A. Grishina

Elektr Stantsii, No 2, p 53

Describes method proposed by author for using sea water instead of fresh water soln of NaCl in regenerating on principle of substituting Na for Ca ion (filter material is sulfocarbon [sulfonated coal?], mark K) for purification of water used by a maritime elec power sta. Use of sea water has increased efficiency of filters.

GRISHINA, V.V.

Applying mixed organic-mineral fertilizers to winter wheat. Zemledelie no.7:77-78 Jl '63. (MIRA 16:9)

1. Lipetskaya gosudarstvennaya sel'skokhozyaystvennaya opytnaya stantsiya.
(Wheat--Fertilizers and manures)

YADULLAYEV, N.N.; ASKEROV, A.G.; GRISHINA, V.P.

Determining the optimum duration of drilling cycles. Sbor. nauch.-tekh. inform. Azerb. inst. nauch.-tekh. inform. Ser. Neft. prom. no.4:11-14 '63. (MIRA 18:9)

FATALIYEV, M.D.; GRISHINA, V.P.; KUTSYN, V.P.

Instrument for recording core formation. Mash. i neft. obor. no.5:27-28 '64. (MIRA 17:6)

1. AzNIIburneft'.

YADULLAYEV, N.N.; ASKEROV, A.G.; GRISHINA, V.P.; SHARUTIN, A.S.

Efficient performance time of bits on well bottoms. Trudy AzNII DN no.9:135-149 '60. (MIRA 14:5)
(Boring machinery)

GRISHINA, V.M.

Problem of the antihypotonic effect of ephedrine. Farm.i toks. 23 no.4:287-295 Jl-Ag '60. (MIRA 14:3)

1. Kafedra farmakologii (zav. - prof. Yu.S.Grosman) Permskogo gosudarstvennogo meditsinskogo instituta.
(EPHEDRINE) (CONDITIONED RESPONSE)

USSR/Pharmacology and Toxicology - Adrenergics. V-5

Abs Jour : Ref Zhur - Biol., No 21, 1958, 98526

of application of I, and held longer. The power of the action of I did not change during the experiment. --
F.G. Sivashinskaya

Card 2/2

USSR/Pharmacology and Toxicology - Adrenergics. V-5

Abs Jour : Ref Zhur - Biol., No 11, 1958, 50926

Author : Gershang, Y.M.

Inst : Molotovskiy Medical Institute.

Title : Influence of Daily Introduction of Ephedrine in Therapeutic Doses on the Conditioned Reflex Activity of Dogs.

Orig Pub : Tr. Molotovsk. med. in-ta, 1957, vyp. 26, 179-183.

Abstract : The internal introduction of ephedrine (I) daily for [illegible] days 1 hour before an experiment in a dosage of [illegible] mg/kg disturbed the conditioned and unconditioned reflex activity of dogs. Disturbance of the conditioned reflexes arises earlier and is more stable. In a dog of a strongly unbalanced type, the disturbance of reflexes arose gradually; in a dog of an intermediary type from the first day

Card 1/2

- 19 -

EXCERPTA MEDICA Sec.2 Vol.11/4 Physio-biochem-pharm Apr58

1807. EFFECT OF PROLONGED ADMINISTRATION OF EPHEDRINE ON CONDITIONED REFLEX ACTIVITY IN DOGS (Russian text) - Grishina V. M. - FARMAKOL. I TOKSIKOL.1957, 20/1 (3-6) Graphs 3

Experiments were performed on 2 dogs in which several positive and inhibitory alimentary conditioned reflexes had been established. It was found that oral administration of ephedrine in daily doses of 0.005-0.006 g./kg. for 10 days caused an increase of salivary positive reflexes as well as deinhibition of reflexes to the differential stimulus. The conditioned reflexes remained increased for some days after discontinuation of the drug. Wyrwicka - Warsaw

GRISHINA, V.M.

Effect of ephedrine on conditioned reflex activity in dogs [with summary in English]. Zhur.vys.nerv.deiat. 7 no.2:248-253 My-Ap '57. (MLRA 10:9)

1. Kafedra farmakologii Molotovskogo meditsinskogo instituta
(REFLEX, CONDITIONED, eff. of drugs on ephedrine in dogs)
(EPHEDRINE, eff. on conditioned reflex in dogs)

GRISHINA, V. M.

L. D. Bakbrakh, V. M. GRISHINA: "On the construction of antennas with optimum patterns." Scientific Session Devoted to "Radio Day", May 1956, Trudrezervizdat, Moscow, 9 Sep. 56

Certain questions of principle to obtain optimum patterns as well as questions of computing image antennas which would guarantee optimum patterns are analyzed. In particular, problems of obtaining a pattern with optimum relations between the pattern width (at the null and half-power levels) and the secondary emission levels for linear antennas and antennas with a circular aperture are analyzed.

The results of investigating optimum relations of another kind. An optimum between the gain and the pattern characteristics, and optimum monotonic pattern, etc., are analyzed.

Methods are given for computing a two-mirror antenna which would guarantee an optimum pattern. Experimental results are presented of mirrors computed in order to obtain the maximum gain and the optimum relations between the pattern width and the secondary (side) emission level.

GRISHINA, V.I.; LATSINIK, G.Ye.; SIVOSHINSKIY, D.S.; [illegible]BAK, Ya.F.; SIMOL', S.E.

Isotope method for the determination of fat assimilation. Vop. med. khim. 8 no.2:214-217 Mr-Ap '62. (MIRA 15:4)

1. Chair of medical radiobiology and Chair of infectious diseases, Central Institute for Postgraduate Training of Physicians, Moscow.
(FAT) (ABSORPTION (PHYSIOLOGY)) (IODINE ISOTOPES)

KRASNOV, M.L., prof.; GRISHINA, V.I.; SIVOSHINSKIY, D.S.; MILOVIDOVA, L.; AGRANAT, V.Z.; GUL'YAYEVA, E.G.; KOLONTAROV, K.D.

Clinical method of diagnosing intraocular tumors with radioactive phosphorus. Vest.oft. no.3:3-9 My-Je '58. (MIRA 11:8)

1. Kafedra glaznykh bolezney i kafedra meditsinskoy radiologii TSentral'nogo instituta usovershenstvovaniya vrachey (for Krasnov, Grishina, Sivoshinskiy). 2. Moskovskaya glaznaya klinicheskaya bol'nitsa (for Milovidova). 3. Vsesoyuznyy nauchno-issledovatel'skiy instituta meditsinskogo instrumentariya i oborudovaniya (for Agranat, Gul'yayeva, Kolontarov).
(EYE--TUMORS) (PHOSPHORUS--ISOTOPES)

SHLYAKHMAN, A.L.; GRISHINA, V.I.; SHNOL', S.E.

Studies on the distribution and chemical conversion of novocaine in the rat organism. Vop.med.khim. 5 no.6:422-428 N-D '59.
(MIRA 13:3)

1. Kafedra 1-y terapii i kafedra meditsinskoy radiologii TSentral'nogo instituta usovershenstvovaniya vrachey, Moskva.
(PROCAINE metab.)

GRISHINA V.I.

LYASKOVSKAYA, Yu.N., kandidat tekhnicheskikh nauk; IVANOVA, A.A., mladshiy nauchnyy sotrudnik; GRISHINA, V.I., zaveduyushchiy laboratoriyey; PUKLIN, Ya.S.

Studying changes in fats during storage. Trudy VNIIMP no.7:78-95 '55. (MLRA 9:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut myasnoy promyshlennosti (for Lyaskovskaya, Ivanova); 2. Nachal'nik OPVK (for Puklin); 3. Kholodil'nik No. 10 (for Grishina, Puklin)
(Oils and fats, Edible)

ITINA, O.Ye.; OSKORBINA, N.A.; GRISHINA, V.G.

Linen bleaching with sodium chlorite. Tekst.prom. 18 no.10: 41-43 O '58. (MIRA 11:11)
(Linen) (Bleaching agents)

GRISHINA, V., nauchnyy sotrudnik

Take care of your eyes. Sov. profsoiuzy 19 no.16:47 Ag '63.
(MIRA 16:10)

1. Institut glavnykh bolezney imeni Gol'mgol'tsa.

GRISHINA, T.Ya.; PAKSHVER, E.A.; TSIPERMAN, V.L.

Studying the process of the spinning of polyacrylonitrile fibers. Khim. volok. no.3:9-10 '63. (MIRA 16:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna.

(Textile fibers, Synthetic)
(Acrylonitrile)

PAKSHVER, E.A.; BEDER, L.M.; GRISHINA, T.Ya.; KHARITONOVA, L.G.

Technological calculations for the machinery used in washing polyacrylonitrile fibers. Khim.volok. no.5:24-29 '59. (MIRA 13:4)

1. Kalininskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta iskusstvennogo volokna (VNIIV).
(Textile fibers, Synthetic) (Acrylonitrile)

TALAYEVA, G.V.; GRISHINA, T.Ya.

Selecting corrosion-resistant metals for the equipment and connecting pipes in the manufacture of the nitron (orlon) synthetic fiber. Khim.volok. no.4:58-61 '59. (MIRA 13:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna.
(Corrosion-resistant materials) (Orlon)

GRISHINA, T.Ya.; MICHURINA, G.A.; PAKSHVER, E.A.

Formation of polyacrylonitrile fibers. Khim.volok. no.4: 13-15 '59. (MIRA 13:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna i filial Vsesoyuznogo nauchno-issledovatel'skogo instituta iskusstvennogo volokna v g. Kalinine.
(Orlon) (Acrylonitrile)

GRISH[illegible], T.N.; KROMCHENKO, [illegible]; [illegible]

Adsorption of [illegible] substances on a [illegible]-catalyst. Vest. Mosk. un. Ser. [illegible] [illegible] '65. (MIRA 19:1)

1. Kafedra [illegible] Moskovskogo universiteta. Submitted Feb. 15, 1965.

KOCHEROV, Nikolay Pavlovich; GRISHINA, Tat'yana Nikhaylovna; SOMINSKIY, V.S., red.

[Economic efficiency of the use of polyolefins and polystyrene plastics in the manufacture of machinery] Ekonomicheskaia effektivnost' primeneniia poliolefinov i polistirol'nykh plastikov v mashinostroenii. Leningrad, 1965. 31 p. (MIRA 18:6)

GRISHINA, T.M., KHOMCHENKO, G.P., VOVCHENKO, G.D.

Mechanism of electroreduction of some organic substances on rhodium. Part 4. Vest.Mosk.un. Ser.2:Khim. 18 no.6:52-54 N-D '63. (MIRA 17:4)

1. Kafedra obshchey khimii Moskovskogo universiteta.

GRISHINA, T.M.; KHOMCHENKO, G.P.; VOVCHENKO, G.D.

Comparison of the rates of the catalytic reduction and electrolytic reduction of some organic substances on rhodium. Part 3. Vest.Mosk. un. Ser.2: Khim. 18 no.4:55-58 Jl-Ag '63. (MIRA 16:9)

1. Kafedra obshchey khimii Moskovskogo universiteta.
(Catalysis) (Reduction, Electrolytic)
(Electrodes, Rhodium)

GRISHINA, T.M.; KHOMCHENKO, G.P.; VOVCHENKO, G.D.

Electrochemical study of rhodium and osmium electrode-catalysts.
Part 2: Effect of poisoning on the capacity of rhodium electrode.
Vest.Mosk.un. Ser.2:Khim. 18 no.1:48-51 Ja-F '63. (MIRA 16:5)

1. Kafedra obshchey khimii Moskovskogo universiteta.
(Electrodes, Rhodium)

GRISHINA, T.M.; KHOMCHENKO, G.P.; VOVCHENKO, G.D.

Electrochemical investigation of rhodium and osmium catalyst-electrodes. Report No.1. Vest.Mosk.un.Ser.2: Khim. 17 no.2:53-56 Mr-Ap '62. (MIRA 15:4)

1. Kafedra obshchey khimii Moskovskogo universiteta.
(Electrodes, Rhodium) (Electrodes, Osmium) (Electrochemistry)

KHOMCHENKO, G.P.; GRISHINA, T.M.; KRASNIKOVA, L.Ya.; PLETYUSHKINA, A.I.; TSINTSEVICH, V.M.; VOVCHENKO, G.D.

Behavior of certain organic substances in hydrogenation reactions on platinum andrhodium catalyst electrodes. Vest. Mosk. un. Ser. 2: Khim. 15 no.6:30-32 N-D '60. (MIRA 14:2)

1. Kafedra obshchey khimii Moskovskogo universiteta.
(Hydrogenation) (Platinum) (Rhodium)

KHOMCHENKO, G.P.; GRISHINA, T.M.; KRASNIKOVA, L.Ya.; PLETYUSHKINA, A.I.; TSINTSEVICH, V.M.; VOVCHENKO, G.D.

Behavior of adsorbed hydrogen in reactions of hydrogenation of organic substances on platinum and rhodium electrodes-catalysts. Part 1. Vest. Mosk. un. Ser. 2: Khim. 15 no.5:39-46 S-O '60. (MIRA 13:11)

1. Moskovskiy gosudarstvennyy universitet, kafedra obshchey khimii. (Hydrogen) (Hydrogenation)

The Determination of Small Amounts of Rare Earths in Praseodymium, Neodymium, Samarium, Terbium, Dysprosium, Holmium, Erbium, and Thulium Preparations

SOV/75-14-4-7/30

the paper. In order to test the devised method of determination, calibration samples were analyzed. The results of the determination of Y and Gd in Tb are shown by table 3. The mean arithmetic error of the determination (determined from 4 results each) is ~ 5%. The author thanks G. K. Yeremin and L. I. Martynenko for having supplied preparations of rare earths, and V. M. Tatevskiy and L. V. Lipis for their assistance in the investigation. There are 2 figures, 3 tables, and 11 references, 6 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: April 11, 1958

Card 3/3

3000 to 4600 Å. The electrodes were of copper or carbon, and had the shape of flat blocks. A drop of the solution was applied to the electrode block, which was previously coated with a thin film of polystyrene. After the drying up of the drop, a thin layer of the substance to be analyzed remained. The spectra were excited in an alternating-current arc (8a, 220 v). In spite of the complicated nature of the spectra of rare earths, the use of the spectrograph DFS-3 permits the determination of 100th-% impurities of the elements adjacent to the main component in the series of rare earths. 1 mg of substance is sufficient for the determination. The author determined the following impurities: La and Nd in Pr; Pr and Sm in Nd; Eu and Nd in Sm; Gd and Y in Tb; Y and Ho in Dy; Dy and Er in Ho; Ho and Tu in Er; Er and Yb in Tu. The respectively used analytical line pairs, the concentration ranges where the relation between log R and log c is rectilinear (R relative intensity, c concentration of the impurity in %), as well as the used electrolyte are shown by table 2. The procedure of selecting the suitable lines is described in

5(2) SOV/75-14-4-7/30

AUTHOR: Grishina, T. I.

TITLE: The Determination of Small Amounts of Rare Earths in Praseodymium, Neodymium, Samarium, Terbium, Dysprosium, Holmium, Erbium, and Thulium Preparations

PERIODICAL: Zhurnal analiticheskoy khimii, 1959, Vol 14, Nr 4, pp 427 - 430 (USSR)

ABSTRACT: Spectroscopic analysis on the basis of emission spectra permits the determination of all rare earths and is distinguished by high absolute sensitivity. Table 1 shows the results of the papers of various authors (Refs 1-9), who determined the impurities in purified preparations of individual rare earths on the basis of emission spectra. The author of the paper under review used for his investigations the Soviet difraction-spectrograph DFS-3. Standards and samples for the quantitative determination of the impurities of rare earths were produced in the form of 5%-solutions (related to the metal) of the chlorides of rare earths in 1%-hydrochloric acid (Ref 10). The spectra were examined in the range of from

Card 1/3

GRISHINA, T. I., Candidate Chem Sci (diss) -- "Emission spectral analysis of preparations of the rare-earth elements for small rare-earth impurities". Moscow, 1959. 7 pp (Moscow Order of Lenin and Order of Labor Red Banner State U im M. V. Lomonosov, Chem Faculty), 110 copies (KL, No 25, 1959, 128)

GRISHINA, T. I.

"Determination of Small Admixtures of Rare Earths in High Purity Rare Earth Preparations by Spectral Emission Analysis."

Rare Earth Elements (Extraction, Analysis, Use), Published by the Institute of Geochemistry and Analytical Chemistry Imeni V. I. Vernadskiy, 1960, Moscow.

(Moscow State University Im. M.V.Lomonosov), p. 266-276.

GERMAN-RUSAKOVA, Lidiya Dmitriyevna; SHADLUN, T.N., otv. red; GRISHINA, T.B., red. izd-va; DOROKHINA, I.N., tekhn. red.

[Migration of elements in the oxidation zone of the Blyava chalcopyrite deposit in the Southern Urals] Migratsiia elementov v zone okisleniia Bliavinskogo mednokochedannogo mestorozhdeniia na IUzhnom Urals. Moskva, Izd-vo Akad.nauk SSSR, 1962. 126 p. (Akademiia nauk SSSR. Institut geologii rudnykh mestorozhdenii, petrografii, mineralogii i geokhimii. Trudy, no.68). (MIRA 15:7)
(Blyava region—Chalcopyrite)

KELINA, Ida Mikhaylovna, kand. tekhn. nauk; GRISHINA, T.B., otv. red.; MIRONOVA, T.A., red. izd-va; MAKSIMOVA, V.V., tekhn. red.

[Operator of pneumatic separators] Mashinist pnevmaticheskogo separatora. Moskva, Gosgortekhizdat, 1963. 82 p.
(MIRA 16:7)
(Separators (Machines))--Pneumatic driving)

L 36342-66
ACC NR: AP6015776

spherical aberration and diffraction error, chromatic aberration, and ripple in the accelerating potential and the excitation current of the objective. The calculated and measured values were in good agreement except for the case when the aperture was 0.0035 radian and the accelerating potential was 100 kV; the discrepancy in this case is ascribed to a difference between the theoretical and effective apertures. It was found that the image quality deteriorates the more rapidly with increasing specimen thickness, the larger the aperture and the lower the accelerating potential. The authors thank A.V.Iz"yurov for measuring the ripple in the high voltage supply. Orig. art. has: 1 formula, 2 figures, and 1 table.

SUB CODE: 20/ SUBM DATE: 00/ ORIG REF: 001/ OTH REF: 000

Card 2/2 45

L 36342-66 EWT(m)/T/EWP(t)/ETI IJP(c) JD

ACC NR: AP6015776 (A,N) SOURCE CODE: UR/0048/66/030/005/0829/0831

AUTHOR: Grishina, T. A.; Stoyanova, I. G.

ORG: none

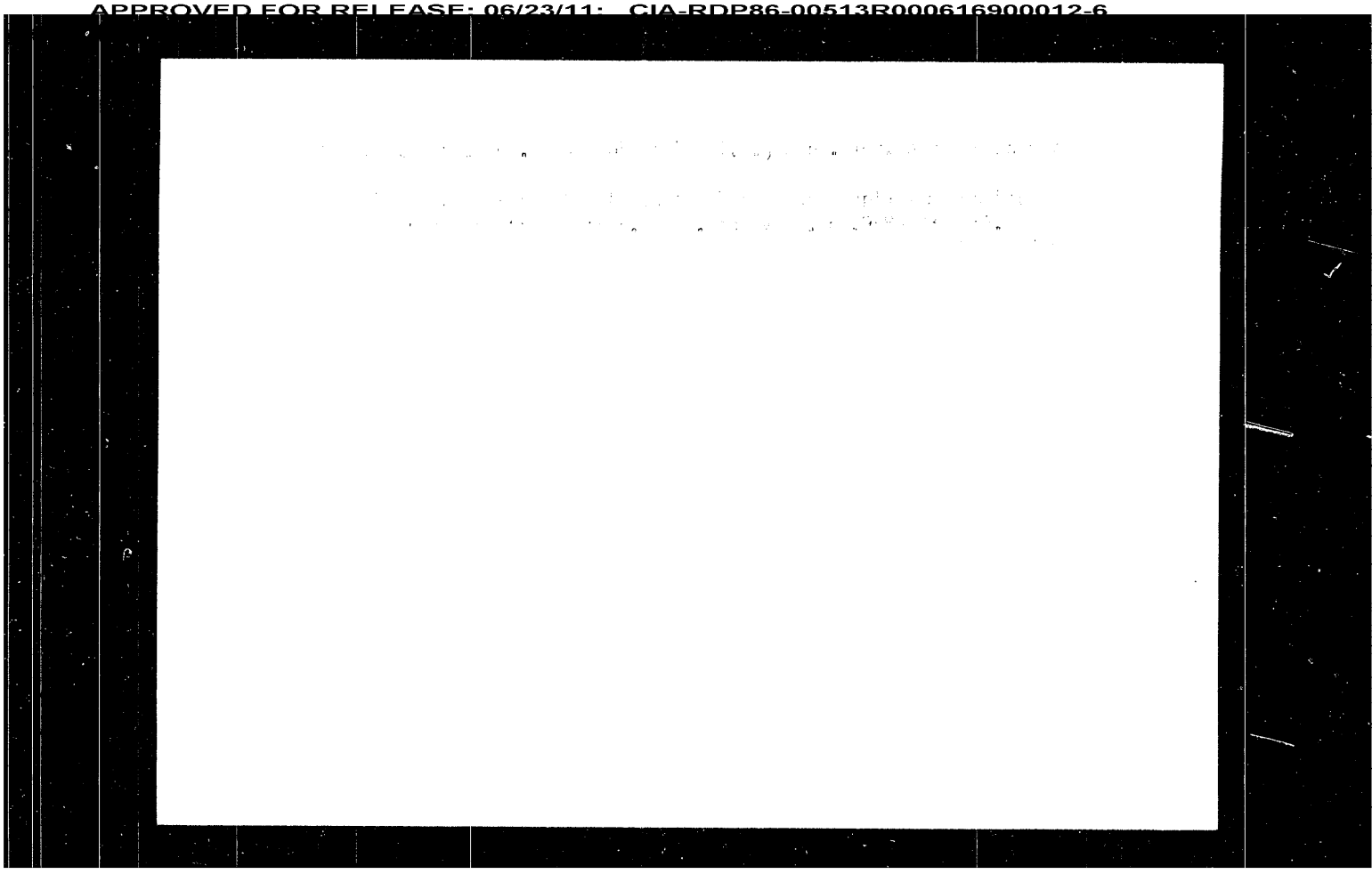
TITLE: Investigation of the dependence of image quality on the specimen thickness in the case of an electron microscope with a long-focus objective /Report, Fifth All-Union Conference on Electron Microscopy held in Sumy 6-8 July 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 5, 1966, 829-831

TOPIC TAGS: electron microscope, optic resolution, chromatic aberration, spherical aberration, electron scattering/UEMV-100B electron microscope

ABSTRACT: The resolving power of a UEMV-100B electron microscope has been measured as a function of the thickness of the object. The microscope was equipped with an 8 mm focal length objective with chromatic and spherical aberration coefficients of 7.7 mm and 34 mm, respectively; the ratio of the gap width to the channel diameter of the objective was 0.8. The objects were films of Formvar with thicknesses ranging from 1 to 13.4 $\mu g/cm^2$ on which silver particles had been deposited. Measurements were made at accelerating potentials of 50, 75, and 100 kV and apertures of 0.0017, 0.0034, and 0.0085 radian. The results are presented graphically and are compared with calculations based on a formula that takes into account deterioration of the image due to

Card 1/2



GRISHINA, T.A., kand.med.nauk; OLEVSKIY, M.I., prof.; STRUTSOVSKAYA, A.L., doktor med.nauk

Basic principles for conducting the work of raising the qualifications of physician-pediatricians in Moscow Province. Vop.okh.mat.i det. 7 no.9:72-75 S '62. (MIRA 15:12)

1. Iz Moskovskogo oblastnogo otdela zdravookhraneniya (zav. - zasluzhennyy vrach RSFSR P.G.Demidov) i Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta (dir. - zasluzhennyy vrach RSFSR P.M.Leonenko).
(MOSCOW PROVINCE--PEDIATRICS)

NOSOV, S.D., red.; SOBOLEVA, V.D., red.; GRISHINA, T.A., red.; PONINA, N.D., tekhn. red.

[Studies on whooping cough]Uchenie o kokliushe. Moskva, Medgiz, 1962. 277 p. (MIRA 15:11)

(WHOOPING COUGH)

GRISHINA, T. A.

Cand Med Sci - (diss) "Basic features of the development of child public health in the Moscow Oblast (1917-1957)." Moscow, 1961. 21 pp; (First Moscow Order of Lenin Medical Inst imeni I. M. Sechenov); 250 copies; price not given; (KL, 5-61 sup, 202)

GRISHINA, T.A.

"Children's sanatorium" by N.M. Dmitrieva, V.A. Lebedeva. Reviewed by T. A. Grishina. Pediatriia 36 no.11:84 N '58. (MIRA 12:8)
(CHILDREN--HOSPITALS)(DMITRIEVA, N.M.)
(LEBEDEVA, V.A.)

GRISHINA, Tat'yana Alekseyevna

[What parents should know about rheumatism in children]
Chto nado znat' roditeliam o revmatizme u detei. Moskva,
Gos. izd-vo med. lit-ry, 1958. 27 p. (MIRA 16:4)
(RHEUMATISM)

KRETOVICH, V.L.; GEYKO, N.S.; Prinimali uchastiye: ZHURAVLEVA, S.; GARMGEN, O.; GRISHINA, T.

Content of keto acids in plants. Dokl. AN SSSR 158 no.2:471-473 S '64. (MIRA 17:10)

1. Institut biokhimii im. A.N.Bakha AN SSSR i Tekhnologicheskiy institut pishchevoy promyshlennosti. 2. Chlen-korrespondent AN SSSR (for Kretovich).

L 06120-67 EWT(l)/EWP(t)/ETI IJP(c) JD/GG
ACC NR: AP6030763 (A) SOURCE CODE: UR/0363/66/002/009/1549/1553

AUTHOR: Grishina, S. P.; Mil'vidskiy, M. G.; Osvenskiy, V. B.

33
B

ORG: Giredmet

TITLE: Procedure for detecting dislocations by etching single crystals of gallium arsenide

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 9, 1966, 1549-1553

TOPIC TAGS: gallium arsenide, etched crystal, metal etching

ABSTRACT: Richards-Crocker etchant was used to detect characteristic etch pits on the (111) surface of gallium arsenide by successive applications. These experiments and experiments on the plastic deformation of crystals demonstrate that the etch pits correspond to the outcrop sites of the dislocations. On the (110) plane, this etchant leads to polishing and not to selective etching. An etchant consisting of $HF:HNO_3:H_2O=1:7:12+1\cdot10^{-2}$ molar solution of $AgNO_3$ was used for selective etching as well as for the detection of dislocations. Orig. art. has: 6 figures, 2 formulas.

SUB CODE: 20 11 / SUBM DATE: 07Dec65/ ORIG REF: 001/ OTH REF: 007

UDC: 546.681'191 : 548.55 : 551.243

Card 1/1 pla

MEL'NIKSKIY, M.G.; GRUSHINA, S.P.; YEREMEYEV, V.V.

Distribution of impurities in silicon single crystals during their growing by the Chokhral'skii method. Izv. AN SSSR. Neorg. mat. 1 no.11:1864-1872 N '65. (MIRA 18:12)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut redkometallicheskoy promyshlennosti, Moskva. Submitted May 10, 1965.

L 10857-66

ACC NR: AP5028713

The impurity substructures in crystals doped extensively with the various impurities were studied. Inclusions of the second phase during the growth of these crystals are probably due to a nonequilibrium trapping of droplets of melt rich in impurities. Orig. art. has: 6 figures.

SUB CODE: 20,11 SUBM DATE: 10May65/ ORIG REF: 017/ OTH REF: 006

HW

Card 2/2

L 10859-66 EWT(l)/EWT(m)/T/EWP(t)/EWP(b)/EWA(c) IJP(c) JD/GG

ACC NR: AP5028713 SOURCE CODE: UR/0363/65/001/011/1864/1872

44,55 44,55 44,55

AUTHOR: Mil'vidskiy, M. G.; Grishina, S. P.; Yeremeyev, V. V.

82
B

44,55

ORG: Giredmet

21,44,55

TITLE: Distribution of impurities in silicon single crystals in growing by the Czochralski method

27 18

SOURCE: AN SSSR. Izvestiya. Neorganicheskiy materialy, v. 1, no. 11, 1965, 1864-1872

TOPIC TAGS: silicon single crystal, phosphorus, arsenic, antimony, aluminum, boron, single crystal growing, crystal impurity

ABSTRACT: The study was carried out on silicon single crystals doped with various concentrations of phosphorus, arsenic, antimony, aluminum, and boron and grown in the <111> direction by the Czochralski method. The distribution of impurities in various cross sections of the crystals was investigated by selective anodic and chemical etching, and the single-probe method of resistivity measurement was used for quantitative determinations. Several systems of growth bands were observed in the ingots, and possible causes of the formation of periodic inhomogeneities are examined. The effect of the nature and concentration of the doping impurity and the growth conditions on the manifestation of the "face effect" in single crystals is discussed.

UDC: 546.28:548.55

Card 1/2

L 54818-65

ACCESSION NR: AP5012496

0.1-2.0 mm thick, cut along (111) and (110). By knowing the dependence of the absorption coefficient on the concentration of doping admixture (determined on standard prepared samples) and by making photometric measurements of the observed image, infrared transmission of light may be used for quantitative determination of the degree of inhomogeneity in highly doped single crystals. Results are in good agreement with selective chemical etching with a 1:1 mixture of fluoric and chromic acids. The technique permits observation of periodic inhomogeneities corresponding to variations in resistivity in neighboring layers less than 10-15%. Inhomogeneities do not generally show up in specimens with high resistivity ($\geq$5 ohm cm) because even large changes in concentration have little effect on the absorption coefficient at low content of doping impurity ($\leq 1\ 10^{15}$ cm^{-3}). Orig. art. has: 2 figures.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut redkometallicheskoy promyshlennosti (State Scientific-Research and Planning Institute for the Rare-Metal Industry)

SUBMITTED: 00 ENCL: 00 SUB CODE: SS, OP

NO REF SOV: 004 OTHER: 003

Card 2/2

L 5l818-65 EWT(l)/EEC(b)-2/T Pi-l IJP(c) GG

ACCESSION NR: AP5012496 UR/0032/65/031/005/0586/0588
621.315.5

AUTHORS: Milʹvidskiy, M. G.; Grishina, S. P.; Berkova, A. V. 29 28 B

TITLE: Inhomogeneity phenomena in single crystals of silicon during transmission of infrared light 21

SOURCE: Zavodskaya laboratoriya, v. 31, no. 5, 1965, 586-588

TOPIC TAGS: silicon, single crystal, IR microscope, doping

ABSTRACT: A method is proposed for studying the volume inhomogeneities of silicon single crystals by means of infrared transmission. This study of double refraction with an IR microscope permits the determination of the nature of impurity distribution in the crystal. In particular, growth zones may be identified in longitudinal sections of silicon single crystals. The authors examined single crystals of silicon doped with phosphorus and arsenic with concentrations up to $1 \cdot 10^{18} - 1 \cdot 10^{20}$ cm^{-3} and antimony with concentrations of $1 \cdot 10^{17} - 1 \cdot 10^{18}$ cm^{-3}. The crystals were grown by the Czochralski method along [111]. Doping concentrations were determined by the Hall effect. Tests were made on plates

Card 1/2

L 63535-65 EWT(m)/EWA(c)/EWP(t)/T/EWP(t) IJP(c) JD

ACCESSION NR: AP5017851 UR/0286/65/000/011/0082/0082

AUTHOR: Omel'yanovskiy, E. M.; Mil'vidskiy, M. G.; Grishina, S. P.; Fistul', V. I.

TITLE: Method of obtaining high-alloy germanium single crystals with electron-type conductivity. Class 40, No. 171586

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 11, 1965, 82

TOPIC TAGS: germanium, germanium single crystal, heat treatment

ABSTRACT: This Author Certificate introduces a method of producing high-alloy germanium single crystals of electron-type conductivity by drawing from the melt. In order to obtain high-alloy single crystals with stable electrical characteristics, the drawn crystals are heat treated for 2—4 hr at about 870C and subsequently quenched. [WW]

ASSOCIATION: none

SUBMITTED: 10Jan63 ENCL: 00 SUB CODE: MM, SS

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4050

Card 1/1

ACCESSION NR: AP4024989

along definite crystal faces. At a certain impurity concentration, crystals begin to show a distinct knobby surface, then a cellular substructure. The general pattern of development of the cellular substructure is the same as in highly doped crystals of Ge. No dislocations were detected in the investigated single crystals. This and the presence of cellular structure are anomalous features when coexisting in the same crystals. Actually, the edge of a cell may be considered a dislocation, and the disorientation angle may give an approximate evaluation of impurity desegregation along this zone. Block structure is responsible for this cellular development. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: Gosudarstvenny*y nauchno-issledovatel'skiy i proyektny*y institut redkometallicheskoy prom*shlennosti (State Scientific Research and Planning Institute of the Rare-Metal Industry)

SUBMITTED: 10May63 DATE ACQ: 16Apr64 ENCL: 00

SUB CODE: SS NO REF SOV: 004 OTHER: 010

Card 2/2

ACCESSION NR: AP4024989 S/0070/64/009/002/0219/0226

AUTHORS: Fomin, V. G.; Mil'vidskiy, M. G.; Orishina, S. P.; Belyatskaya, N. S.; Gurevich, M. A.

TITLE: Some structural features of highly doped single crystals of silicon

SOURCE: Kristallografiya, v. 9, no. 2, 1964, 219-226

TOPIC TAGS: silicon, single crystal growth, crystal structure, metallographic study, x ray study, crystal pulling, impurity content

ABSTRACT: Metallographic and x-ray studies have shown several distributional patterns of impurities in the body of a silicon rod, including cellular substructure. An increase in impurity concentration substantially affects the structure of the crystal and, to a considerable degree, determines growth characteristics. All else being the same, increased impurity concentration in a melt and in the solid rod apparently increases periodic fluctuations in growth rate during pulling and produces associated periodic irregularities in impurity distribution. These irregularities appear in longitudinal sections and in spiral growth rings in transverse sections. Such highly doped crystals show a greater tendency to grow

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L 8707-65

ACCESSION NR: AP4044951

fore, dependent on the conditions of crystal growth. The nature of the alloying impurity and the interaction between the atoms of the impurity and the base component of the alloy also play an important role in the appearance of polytropy, since the polytropy is dependent on the distribution coefficient of impurity. Orig. art. has: 5 figures and 1 formula.

ASSOCIATION: Gosudarstvanny*y nauchno-issledovatel'skiy institut redkometallicheskoy promy*shlennosti, Moscow (State Scientific Research Institute of the Rare Metals Industry)

SUBMITTED: 21Dec63 ATD PRESS: 3112 ENCL: 00

SUB CODE: SS, MM NO REF SOV: 011 OTHER: 005

Card 3/3

L 8707-65
ACCESSION NR: AP4044951

crystals were grown by the Czochralski method in the <111> direction. The following interconnected main factors were found experimentally to be responsible for polytropy of impurities: formation of the M_nA_m-type complexes (where M is a semiconductor and A is an impurity) and clusters; inclusions of the second phase formed during crystallization; formation of an impurity atmosphere on dislocations and formation of an impurity sublattice of the celluar type, with the intercellular segregation of the impurity, which is responsible for the periodical distribution of resistivity along the cross section of a crystal. Aging or heat treatment of germanium crystals resulted in an increase of the carrier concentration and practical agreement between the Hall measurement and activation analysis data. Density of dislocations and concentration of clusters decreased at the same time. These facts are explained in terms of migration of the impurity into solid solution. In silicon crystals, the heat treatment did not produce the same effect as in germanium, since polytropy of impurities was caused mainly by the cellular sublattice which is not removed by heat treatment. It was concluded that the polytropy of impurities is closely connected with structural imperfections, even though minor, in growing single crystals and, there-

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L 8707-65 EWT(1)/EWG(k)/EWT(m)/EPR/T/EWP(b) Pz-6/Ps-4 IJP(c) JD/AT

ACCESSION NR: AP4044951 S/0181/64/006/009/2762/2770

AUTHOR: Mil'vidskiy, M. G.; Pistul', V. I.; Grishina, S. P.

TITLE: Behavior of impurities in highly doped semiconductors

SOURCE: Fizika tverdogo tela, v. 6, no. 9, 1964, 2762-2770

TOPIC TAGS: semiconductor single crystal, highly doped semiconductor, germanium single crystal, silicon single crystal, arsenic impurity, phosphorus impurity, antimony impurity, aluminum impurity, impurity polytropy

ABSTRACT: The alleged polytropy of impurities, i.e., the states in which they do not display donor properties, has been studied in silicon and germanium n-type crystals doped with arsenic, phosphorus, antimony, or aluminum in concentrations greater than 5×10^{17} cm^{-3}. The study was undertaken to explain the disagreement previously observed in the case of high dopant concentrations between the Hall measurements and radioactivation analysis data and the resulting violation of the known condition for ionization equilibrium, which was verified experimentally for lower dopant concentrations. The single

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MIL'VIDSKIY, M.G.; GRISHINA, S.P.

Segregation of impurities along grain boundaries in heavily alloyed silicon single crystals. Fiz. tver. tela 6 no.2:483-488 F '64. (MIRA 17:2)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut redkometallicheskoy promyshlennosti, Moskva.

AID Nr. 985-4 7 June

POLYTROPY OF IMPURITIES [Cont'd] S/020/63/149/005/013/018

It is suggested and, in most instances, shown that polytropy is caused by such factors as 1) the presence of impurities in interstices; 2) the formation of a second phase of the arsenide or phosphide type; 3) the formation of cellular impurity substructures; 4) the deposition of impurities on structural defects; and 5) the formation in the solid solution of such structural complexes as Si_xAs_y or Ge_xP_y. When the impurity is present in the above states, the unsaturated substitutional solid solution is thermodynamically unstable, and it is shown that an additional transfer of impurity atoms into the solid solution takes place with time. This transfer increases the carrier concentration and can be accelerated by heat treatment of the crystals in hydrogen. Further studies of the polytropy of impurities in semiconductors are urged in view of the assumption that the state of impurities in single crystals should determine the life of semiconductors doped with large amounts of impurities. [BAO]

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AID Nr. 985-4 7 June

POLYTROPY OF IMPURITIES IN n-TYPE Ge AND Si SINGLE CRYSTALS DOPED WITH LARGE AMOUNTS OF GROUP V ELEMENTS (USSR)

Fistul', V. I., M. G. Mil'vidskiy, E. M. Omel'yanovskiy, and S. P. Grishina.
IN: Akademiya nauk SSSR. Doklady, v. 149, no. 5, 11 Apr 1963, 1119-1122.
S/020/63/149/005/013/018

A study carried out at the State Scientific Research Institute of the Rare Metals Industry showed that the total impurity content in n-type Ge and Si single crystals doped with large amounts of P or As (impurity content in the melt from which the crystals were grown $> 2 \cdot 10^{20}$ cm^{-3}) is higher than that which has been determined from the Hall effect. It was concluded that in this case, in contrast to Ge and Si crystals doped with small amounts of group V elements, only a portion of the impurity in the crystal is part of the substitutional solid solution, while the rest is present in other states in which the impurity does not exhibit donor properties. This phenomenon was designated "polytropy of impurities in semiconductors."

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AZROVA, TS.S.; ARKHIPOV, A.P.; VINOGRADOV, A.V.; GRABOVSKIY, I.V.; GRISHINA, R.I.; DMITRIYEV, P.D.; DUBINSKIY, Ye.L.; ZABRODIN, B.V.; KOLOTIY, M.V.; KRASNOV, B.S.; KURDYUKOVA, N.V.; L'VOVA, Yu.M.; OBUKHOVA, A.V.; FOMIN, V.G.; MEDVEDEVA, M.A., tekhn. red.

[Album of drawings of TE3, TE7, TE2, TE1, TEM1, and TU2 diesel locomotives; electric apparatus] Al'bom chertezhei teplovozov TE3, TE7, TE2, TE1, TEM1 i TU2; elektricheskie apparaty. Moskva, Transzheldorizdat. Vol.2. 1963. 394 p. (MIRA 16:9)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye lokomotivnogo khozyaystva.

(Diesel locomotives--Electric equipment)

ACC NR: AP6024451

respiratory paths (12 cases of *E. coli* 0111, 4 of type 145, and 1 of *E. coli* 9). The frequency of positive findings was related to subjects' age, decreasing from 7.5% (1—3 mo), 6% (4—5 mo), to 2.1% (6—8 mo), with no positive results recorded for older subjects. Enteropathogenic intestinal bacteria were found most often (5 of 32 cases) in nose and throat mucus of group-infected newborns. The presence of such bacterial secretions in the wards is thought to be the cause of the seeding of the air, seven samples of which yielded *E. coli* 0111. Frequency of secretion of saprophytic intestinal bacteria from the respiratory paths dropped almost twofold from 1—6-month-old subjects (21.4%) to those older than 6 months (11.8%), thus confirming the adaptability of intestinal flora to the mucus of the upper respiratory tract. Analysis of the disease in the same 17 subjects (above) showed that the infective agent was sown from the nose and throat secretion only in the early stage of illness (in seven cases, three to eight days earlier than from the feces). The significance of vomiting in nasopharingeal infection was not confirmed. It was concluded that the drop means of spreading the contagious source is an important consideration in investigations of enterocolitis in hospitals. [WA-50; CBE No. 11]

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